LEVEL news

Great Lakes - St. Lawrence River Water Levels

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October Precipitation Over the Great Lakes

As a percentage of the long-term October average:

Great Lakes Basin	94%
Lake Erie (including Lake St. Clair)	111%
Lake Superior	82%
Lakes Michigan-Huron	89%
Lake Ontario	114%

Note: These figures are preliminary.

October Outflows From the Great

An Eye on Lakes Michigan-Huron Levels

As indicated in the water level information table provided below, water levels on all of the Great Lakes, except Lake Ontario, are below their long-term averages. The lakes are also well into their annual seasonal declines.

Although it is too early to say just how large the 2003-04 seasonal declines will be on the lakes, it is probably safe to say that anyone affected by, or interested in, water levels on Lakes Michigan-Huron is watching this year's seasonal decline a little more closely than usual. As the latest six month forecast indicates, if low supply conditions persist throughout the fall and early winter, levels on Lakes Michigan-Huron could begin 2004 as low as they were in 1964.

In this month's edition of LEVELnews we will review what has happen to water levels on Lakes Michigan-Huron since the beginning of February 2001 to get them to where they are today; about 60 cm below average. This information will be of use as we follow water level changes over the next few months.

After declining from near-record high levels in mid-1997, Lakes Michigan-Huron began February 2001 about 56 cm below average. Levels on the lakes rose a bit more than expected during the spring of 2001 peaking in late-June at 51 cm below average. When compared to conditions earlier in the year, this represented a 5 cm improvement in levels relative to average.

After peaking, the lakes began a slow seasonal decline; however, thanks to a damp, mild fall, their 2001-02 seasonal decline stalled and, in fact, periodically reversed from mid-September to late-December. A dramatic shift to colder weather in late December caused increased evaporation from the lakes and levels resumed their seasonal decline during January and the first three weeks of February 2002. That winter, levels fell only 17 cm in total; 11 cm less than the long-term average seasonal decline on the lakes. As a result, on February 19th when Lakes Michigan-Huron reached their seasonal low for the year they were 40 cm below average.

Water level conditions continued to improve relative to average during the first half of 2002. By the time daily water levels peaked in early July 2002, levels were just 26 cm below average and, most notable, 25 cm higher than they were during the summer of 2001.

Unfortunately, dry conditions beginning in July 2002 combined with below average inflows from Lake Superior and significant evaporation from the lakes during the fall of 2002 and into early 2003 led to very low water supplies to Lakes Michigan-Huron. When levels on the lakes finished their 2002-03

Lakes:

As a percentage of the long-term October average:

Lake Superior 91%

Lake Erie 95%

Lake Huron 83%

Lake Ontario 98%

Note: These figures are preliminary.

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seasonal decline on March 20, 2003 they had fallen 64 cm, more than double the average seasonal amount. This larger than average decline erased the recovery in levels experienced from February 2001 to July 2002. When levels reached their seasonal low in March, about two weeks later than average, they were 63 cm below average.

Levels on the lakes rose 35 cm from March 20th until they peaked for 2003 at right about the average time on August 2nd. Although this increase was only 7 cm more than the long-term average seasonal rise for the lakes, it was about 9 cm more than levels on the lakes have climbed on-average from March 20th to August 2nd. Therefore, when daily levels peaked on August 2nd, Lakes Michigan-Huron were 54 cm below average. At their 2003 peak level, the lakes were 28 cm lower than they were a year earlier and at about the same level as they were in 2001.

As of the beginning of November levels on Lakes Michigan-Huron have declined 22 cm since the summer peak. This decline is about 6 cm more than the long-term average amount recorded from the beginning of August to the beginning of November.

Summary information for "LEVEL*news*"

Great Lakes Water Level Information

	October Monthly Mean Level		Beginning of November Level	
Lake	Compared to Monthly Average (1918-2002)	Compared to One Year Ago	Compared to Beginning-of-Month Average (1918-2002)	Compared to One Year Ago
Superior	27 cm below	18 cm below	25 cm below	16 cm below
Michigan-Huron	61 cm below	27 cm below	60 cm below	22 cm below
St. Clair	31 cm below	15 cm below	29 cm below	10 cm below
Erie	14 cm below	3 cm below	12 cm below	3 cm above
Ontario	2 cm above	14 cm above	6 cm above	22 cm above

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